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**ABSTRACT**

Nonverbal communication variables play a major role in affecting the meaning of messages in business communication contexts. Consequently, business communicators need to have a general understanding of nonverbal communication and to recognize how such behaviors as body posture and movement, eye contact, facial expression, seating arrangement, vocal cues, spatial relationships, and personal appearance affect the ways their verbal messages are received by others. Quite often nonverbal communication provides "metacommunication," or communication about communication, serving to repeat, contradict, substitute, complement, accent, and regulate verbal communication. If business communicators want to ascribe meaning to others' nonverbal behaviors, they should take care to interpret the nonverbal message in its proper context, realizing that people respond differently to different stimuli and that some nonverbal behaviors vary in meaning across cultures. Businessmen can apply their understanding of nonverbal communication to personal interviews to show their true feelings of immediacy, potency, and responsiveness, to relax others, and to achieve maximum effect from the interview situation. They can also observe and adjust seating arrangement, room decor, and eye contact between group members to increase productivity at conferences and in small group discussions.

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## NONVERBAL COMMUNICATION IN BUSINESS:

### PRINCIPLES AND APPLICATIONS

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The scene is Paris, 1968. As the world holds its breath, delegates from the United States, South Vietnam, North Vietnam, and the National Liberation Front gather to negotiate an end to the long Viet Nam conflict. All sides seem willing to compromise. But the talks come close to ending before they begin when bitter disagreement erupts over the seemingly trivial matter of seating arrangement. Newspaper headlines announce: "NEGOTIATORS DISAGREE OVER SEATING ARRANGEMENT—PEACE TALKS POSTPONED." Who would sit where, would reflect the status of the conferees, and on that issue they were not prepared to compromise. It took eight months before the negotiators ultimately agreed upon a round table, a la King Arthur, so that all representatives could be at an equal distance from one another; the initial squabble over seating arrangement would have a lingering unproductive effect on the talks. This is but one example of how nonverbal communication variables play an important role in affecting what happens when people communicate in groups. In this case, the individuals involved represented governments.

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But similar nonverbal variables come into play in corporate board rooms, business conferences, and other interpersonal communication situations in business.

Nonverbal communication variables play a major role in affecting the meaning of messages communicated to others. Since most individuals in business management positions agree that an understanding of the communication process is vital to any business operation, it is important to consider the impact of nonverbal message cues in a business communication context. The objective of this paper is to ~~synthesize~~ recent nonverbal communication research and to interpret the research with implications for the business communicator. First, a definition of nonverbal communication will be provided. Second, the paper will identify the impact nonverbal messages have in businesses and organizations. Third, specific functions of nonverbal communication will be noted. Fourth, a few brief suggestions for interpreting nonverbal communication will be offered. And finally, applications of nonverbal communication research will be made to the personal interview, and the group discussion and conference setting.

### Nonverbal Communication Defined

Communication scholars have yet to arrive at a consensus regarding the definition of nonverbal communication.<sup>1</sup> Birdwhistle, a pioneer in nonverbal research, feels that clear

distinctions between verbal and nonverbal communication cannot be made; the two communication systems are so closely related.<sup>2</sup> Mehrabian prefers to distinguish verbal and nonverbal communication by describing nonverbal communication as subtle, implicit behaviors and verbal communication as an overt, explicit communication mode.<sup>3</sup> Dance, on the other hand, feels that much of what is often referred to as "nonverbal communication" should be called "nonvocal communication."<sup>4</sup> As defined by Dance, nonverbal communication is not dependent on symbolic content for meaning. Thus, gestures and body movements that have verbal (or symbolic) meanings should be more accurately referred to as nonvocal communication.

For the purpose of discussing nonverbal communication in this paper, the following definition seems useful: Nonverbal communication consists of communicative behavior which does not rely upon a written or spoken linguistic code, but that creates meaning intrapersonally, or between two or more individuals. In the context of a business or organization, this definition includes such behaviors as body posture and movement, eye contact, facial expression, seating arrangement, vocal cues, spatial relationships, and personal distance.

## The Importance of Nonverbal Communication in Business Contexts

There are several reasons nonverbal communication variables play an important role in affecting our communication with others. First, people spend more time communicating nonverbally than they do verbally. Second, nonverbal messages are usually a more valid and believable indicator of a communicators message. And third, feelings and emotions are communicated primarily by nonverbal cues.

### People Spend More Time Communicating Nonverbally Than They Do Verbally

A study by Birdwhistle suggests that on the average we spend less than 12 minutes a day in conversation with others.<sup>5</sup> In another study, he found that couples who had been married for at least three years spent an average of only 27 minutes a week talking to one another.<sup>6</sup> His conclusions suggest that we spend more of our time sending and receiving messages nonverbally than we do writing or speaking.

In a business conference only one person speaks at a time. But the rest of the group members can be emitting a whole host of nonverbal cues which can have an impact upon the discussion. Eye contact, facial expression, body posture, movement—some cues consciously controlled, others less intentionally emitted—are occurring, even though only one person is speaking. Viewing nonverbal communication from the

broadest perspective, we can agree with the adage, "You cannot not communicate." Our very presence in a group discussion, interview, or other interpersonal encounter provides a unique addition to the communication context.

#### Nonverbal Cues Are Often More Believable and Valid Indicators Than A Verbal Message

Nonverbal cues are so important to the communication process that when there is a contradiction between the verbal message and the nonverbal message, we are more inclined to believe the nonverbal message than the spoken or written message. Birdwhistle feels that the nonverbal information communicated is so vital to our understanding that he estimates 65% of the social meaning of messages is communicated nonverbally.<sup>7</sup>

Just how do our nonverbal messages betray our verbally encoded messages? Research suggests that when attempting to deceive another, a person may have a vocal quality with higher pitch, slower rate, and more pronunciation mistakes than normal.<sup>8</sup> Ekman and Friesen's research indicates that the face, hands, and feet are an important source of information when one attempts to determine whether someone is trying to hide the true meaning of the message he wishes to communicate.<sup>9</sup> Hess has discovered that the pupils of our eyes dilate when we become emotionally aroused.<sup>10</sup> Blushing, sweating, and changing breathing patterns also may betray our intended meaning.

## **Emotions and Feelings Are Communicated Primarily By Nonverbal Cues**

If an employee is becoming frustrated with his job or disenchanted with a particular assignment, more than likely one can detect his feelings by observing his nonverbal behavior, even before he verbalizes his frustration. Mehrabian and some of his colleagues devised a formula that suggests how much of the total feeling of a message is based upon verbal and nonverbal components.<sup>11</sup> His research suggests that only 7% of the emotional meaning of a message is communicated through the verbal content of a message. About 38% of the impact of the emotional content is derived from the voice (from such things as the rate, pitch, quality, and volume of the voice). But the largest source of emotional meaning, 55%, can be derived from the facial expression of a speaker. Therefore, generalizing from this formula, we find that approximately 93% of emotional meanings are communicated nonverbally. Even though there are some who question the wisdom of applying Mehrabian's formula to all communication settings, his research nonetheless suggests that nonverbal variables provide important information about interpersonal relationships. Mehrabian's research also suggests that when there is an inconsistency between an individual's verbalized emotional state and his emotions and feelings conveyed through facial expressions and tone of voice, the nonverbal cues carry more clout in determining how the receiver will perceive the emotion being expressed.

## Functions of Nonverbal Communication

The previous discussion emphasized the importance nonverbal communication plays in our total communication efforts with others. It will also be helpful for the business communicator to understand the functions of nonverbal cues. Such understanding should help an individual better control his own communication and be more observant of the nonverbal behavior of his colleagues.

Witkin has identified six general purposes or functions of nonverbal communication;<sup>12</sup> (1) repeating, (2) contradicting, (3) substituting, (4) complementing, (5) accenting, and (6) regulating.

Repeating. Nonverbal communication may repeat a verbal message. When asked how to get to the personnel department, a security guard said, "Just go up those stairs and to the right," while pointing toward the stairway. His nonverbal message simply repeated his verbal direction.

Contradicting. The department manager who says, "Sure, I've got time to talk to you. What's on your mind?" while he is nervously looking at his watch, reaching for his hat, and grabbing his attache' case, illustrates verbal/nonverbal contradictory messages. His nonverbal communication is providing meta-communicative information about his desire to sit and chat.



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Meta-communication means communication about communication.

In this case, the department manager's nonverbal signals are providing communication about the validity of his verbal message. As previously noted, when there is a contradiction between the verbal and nonverbal message, the nonverbal message will more than likely affect the meaning of the communication more than will the verbal message.

Substituting. Nonverbal messages may be used as a substitute for the verbal message. As the usually cheerful chairman of the board walks into the board room, with a stern facial expression and a no-nonsense posture, his colleagues need not be told that there is less than pleasing business to be tended to.

Complementing. Nonverbal communication may also add additional meaning to the verbal message. Again, the nonverbal information may meta-communicatively assist in providing an appropriate interpretation of a message. A secretary who took a too leisurely lunch break, causing her to not complete an important assignment on time, may provide "complementary" nonverbal cues when she must apologize to her superior; her reduction in eye contact and vocal volume provides additional information about the sincerity of her apology.

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**Accenting.** Nonverbal communication may emphasise or accent a verbal message. The public speaker who raises his voice and shakes his fist during the climax of his speech serves to underscore or italicise his remarks.

**Regulating.** Nonverbal communication also provides the extremely important function of regulating the flow and interaction of communication between communicators. In a formal communication situation, such as a large conference, an individual may nonverbally signal his desire to communicate by raising his hand. In a less formal meeting, making eye contact, leaning forward, and raising eyebrows, serve as regulatory cues signaling a desire to make a point.

### **Interpreting Nonverbal Messages**

Perhaps you have seen the cover of Julius Fast's best-selling book, Body Language.<sup>13</sup> If so, you've seen the female model wearing a mini-skirt, legs crossed at the knee, a cigarette poised between the fingers of her right hand, eyes seductively peering at you, while she flashes a faint Mona Lisa smile. The captions of the book cover read, "Does her body say that she's a loose woman? Does her body say that she's a manipulator? . . . is she a phony? . . . is she lonely?" We infer that by "reading" another person's

body language (and by reading Fast's book, of course) we will be able to answer those questions. The title of another best-selling book claims that we can, indeed, "read a person like a book."<sup>14</sup> Unfortunately, the state of nonverbal communication theory does not permit us to make conclusive statements about a person's personality and personal habits, based solely upon nonverbal information. We do know, as discussed earlier in this paper, that nonverbal communication is important in determining the way we respond to others. But we should be careful when trying to determine what a specific nonverbal cues means.

Keep the following suggestions in mind when ascribing meaning to the nonverbal behavior of others. First, remember that nonverbal messages must be interpreted in the context in which they occur. Just as we often misunderstand the meaning of a sentence taken out of context, we can also make an improper, inaccurate inference about a specific nonverbal behavior when it is interpreted out of context. Because you observe an employee sitting with crossed legs and folded arms does not necessarily mean that she doesn't want to communicate to others, or that she is a "closed person." Other variables may be operating in the communication system to affect her posture and position.

Second, remember that people respond differently to different stimuli. For example, not all people express emotions in the same manner. It may take considerable time before you can begin to understand the unique, idiosyncratic meaning underlying specific nonverbal behaviors exhibited by another person.

Finally, remember that each individual nonverbally responds in a manner appropriate for the culture from which they learned the behavior. Hall<sup>15</sup> and, more recently, Shuter<sup>16</sup> have documented the cultural differences in posture, movement, personal space, territorial claims, facial expression, and the uses of time. Each group to which you belong may adopt certain normative nonverbal behavior. Behaviors acceptable in one group may not be appropriate in another group.

### Applications of Nonverbal Communication Research to Business

Most of the research summarized in this paper about nonverbal communication in business is not based upon studies that have specifically examined nonverbal behavior as it occurs in businesses and organizations. Few such studies have been conducted, as it is easier to experimentally manipulate variables in a controlled laboratory situation than in a business. Yet, despite the lack of experimental research examining nonverbal behavior in businesses, applications of extant nonverbal research can be made to the corporate setting. In addition, some descriptive studies do provide insight as to applications of nonverbal communication principles to business situations. The remaining portion of this paper will note applications of nonverbal communication research to two communication situations prevalent in business: the personal interview, and conferences and small group discussions.

## The Personal Interview

The nonverbal dynamics of the personal interview are perhaps more important than those of other communication situations in business. Whether it is an employment interview, in which impressions based upon nonverbal cues often determine an individual's employability, or an information gathering interview, in which we primarily are seeking information, but are also influenced by the unspoken dimensions of the conversation, nonverbal cues affect the meaning of the messages communicated.

Mehrabian has developed a three-dimensional model which identifies how we respond to nonverbal messages.<sup>17</sup> His model seems to be particularly useful in examining the nonverbal dynamics of a personal interview, because the purpose of many interviews, particularly employment interviews, is to assess both competency and personality. And we often rely upon nonverbal messages to infer how competent and personable a prospective employee is. Mehrabian's research suggests that we ascribe meaning to nonverbal behavior along three dimensions: (1) immediacy (liking), (2) potency (status), and (3) responsiveness (activity or energy).

Immediacy. As defined by Mehrabian, immediacy refers to our liking or disliking others. The immediacy principle is, "People are drawn toward persons and things they like, evaluate highly, and prefer; and they avoid or move away from things they dislike, evaluate negatively, or do not prefer."<sup>18</sup> Mehrabian's research suggests that such nonverbal behaviors as touch, forward

lean, distance and personal space, body posture and position, and eye contact are nonverbal variables that provide an index of liking. Based upon Mehrabian's immediacy principle, we will probably have more favorable impressions of individuals who sit close to us, establish eye contact with us, and establish an immediate posture (within normative limits, of course). After interviewing a job applicant, you may feel that there was something about the candidate that you liked, but you just can not specifically identify what it was. It may have been the individual's display of nonverbal immediacy cues. Mehrabian's model would suggest that individuals who establish less eye contact, require a greater area of personal space, and maintain less immediate posture and position elicit less favorable attitudes.

Potency. Mehrabian's second dimension or referent of meaning, refers to the communication of status or power. Persons of higher status generally determine the degree of immediacy or closeness permitted in their interactions with others. A person of high status, for example, generally has a more relaxed body posture when interacting with a person of lower status.<sup>19</sup> While the employment interviewer may feel quite comfortable leaning back and relaxing in his chair, the job applicant (with considerably less status) probably maintains a more formal posture while in the presence of his questioner.

An individual's use of personal space provides another indication of his status; high status individuals generally maintain greater personal distance from others. And it is usually

the higher status individual who determines what constitutes appropriate personal distances. The president of a company probably has a larger desk than a newly hired secretary. The larger desk not only signifies status, but also serves as a barrier to keep others at a greater personal distance. When talking with someone of equal status, the company president will, more than likely, come from behind the desk and converse at closer personal distances.

Responsiveness. The third dimension of Mehrabian's nonverbal communication model refers to our perceptions of others as active or passive, energetic or dull, or fast or slow. Body movement, facial expression, and variation of vocal cues (pitch, rate, volume, and quality) all help contribute to our perceptions of others as responsive or unresponsive. Thus, during an interview situation, the interviewee who provides nonverbal feedback with immediate posture, appropriate gestures, and facial expression, and who maintains an animated vocal quality, will probably elicit perceptions of someone who is dynamic, energetic, and enthusiastic--in short, responsive.

An important nonverbal variable, not directly included in Mehrabian's model, but which has a profound effect upon the perceptions we make of others during an interview, is physical appearance. Physical attractiveness has been documented to affect persuasibility; individuals rated more personally attractive were also more persuasive than less attractively rated individuals.<sup>20</sup> Wells and Siegel found that body shape affects

our stereotypical perceptions of others.<sup>21</sup> Fat and round silhouette figures (endomorph body type) were rated as older, more old-fashioned, less good-looking, more talkative, and more good-natured. Athletic, muscular drawings (mesomorph body type) were rated as more mature, better looking, taller, and also more adventurous. Tall and thin silhouette drawings (ectomorph body type) were rated more ambitious, more suspicious of others, more tense and nervous, pessimistic, and quieter. In addition to general physical attractiveness and size and shape of the body, what an individual wears affects perceptions others develop. Two recent books by John T. Malloy, Dress for Success<sup>22</sup> and Dress for Success for Women,<sup>23</sup> prescribe the types of apparel which elicit perceptions of competency, power, and status. A study by Lefkowitz, Blake, and Mauton found that a well-dressed man who violated a "don't walk" sign at a busy street corner was able to attract more followers than a man who was not well-dressed.<sup>24</sup> Personal appearance, then, has an important influence upon overall perceptions we make of others.

By noting how an individual's nonverbal immediacy, potency, and responsiveness behaviors, as well as his personal appearance, affect our perceptions of that individual, we may make more informed impressions of others. While the validity of our impressions may be questioned if we rely only upon nonverbal cues, such cues nonetheless provide a better basis for understanding why we perceive others as we do.



### Nonverbal Communication in Group Discussion and Conference Settings

The business professional spends a great deal of time communicating in small groups. Nonverbal variables often have an important impact upon verbal interaction and individual roles assumed by group participants. Mehrabian's three-factor model of nonverbal behaviors and personal appearance helps us better understand the dynamics of small group business meetings, as well as a personal interview situation. In addition to Mehrabian's research, the study of small group ecology—the consistent ways in which people arrange themselves in small groups—can provide insights into leadership, status, and communication interaction patterns in a group discussion.

As we interact with others in a small group, it is interesting to note relationships between seating arrangement and group members' status, leadership, and amount of communication directed toward others. Stenzor found that when group members were seated in a circle, discussants were more likely to talk to the person across from them, than to those on either side of them.<sup>25</sup> Research by Strodbeck and Hook,<sup>26</sup> and Hare and Bales<sup>27</sup> suggests that more dominant group members tend to select a seat at the head of a rectangular table or a seat which will maximize their opportunity to communicate with others because of increased immediacy cues. In addition, people who sit at the corner seats of a rectangular table generally contribute the least amount of information to a discussion. If you find yourself in a position to prepare the seating arrangement

for a group discussion or conference, armed with this information, you should be able to make more informed choices regarding who should sit where and the probable effect upon verbal interaction.

Research by Howells and Becker suggest that an individual's position in a small group discussion can affect the probability of the person's becoming the leader of the group.<sup>28</sup> In their study, five people sat around a table, three on one side and two on the other. These two researchers discovered that there is a greater probability of the discussants' becoming leaders if they sat on the side of the table facing the three discussion members. More direct eye contact with more group members, which can subsequently result in a greater control of the verbal communication, may explain why the two individuals who faced the other three group members emerged as leaders beyond chance expectations.

Other researchers have discovered that such variables as stress, sex, and personality characteristics also affect how we may arrange ourselves in small groups. Dosey and Meisels concluded that people prefer greater personal space when they are under stress.<sup>29</sup> If you know, for example, that an upcoming discussion will probably be an anxiety-producing meeting, based upon Dosey and Meisels' study, it would be preferable to hold the meeting in a room which would permit the group members to have a bit more freedom of movement. This would assist group members in finding their preferred personal distance from fellow group members.

Sommer found that women tend to sit closer to others

(either men or women) than men sit to men (i.e., men generally prefer greater personal space when sitting next to other men).<sup>30</sup>

In a study to find out whether personality characteristics affect our preferred seating arrangements, Cook concluded that extroverts have a greater tendency to sit across from another person than do introverts.<sup>31</sup> Introverts generally prefer a seating arrangement which maximizes the distance between themselves and others. Collectively, these studies suggest that there is some consistency in the way we choose to arrange ourselves in small group discussions. A chairman of a group or committee who understands general group member seating preferences should be able to assist in providing a more comfortable climate for conferences and group discussions.

Not only seating arrangement, but the communication environment and decor can also affect a group's ability to work together. A classic study by Maslow and Mintz examined whether room decor has an effect upon the occupants of the room.<sup>32</sup> These researchers "decorated" three rooms. One was refurbished to fit the label of an "ugly room." It resembled a drab, cluttered janitor's storeroom, and was rated as horrible and repulsive by observers assigned to examine the room. The second room used in this study was decorated to look like an "average room," described as looking similar to a professor's office. The third room was decorated with carpeting, drapes, tasteful furniture, and room decorations, and was labeled a "beautiful room." Raters felt that the "beautiful room" was

indeed attractive and aptly labeled as beautiful. After the rooms were decorated, subjects were assigned to one of the three rooms and were given the task of rating several facial photographs. The results indicated that the environment had a significant effect upon how the subjects rated the faces. Facial photographs were rated higher in the "beautiful room" than in the "ugly room." Subjects in the "ugly room" also reported that the task was more unpleasant and monotonous than did subjects who were assigned to the beautiful room. Subjects assigned to the "ugly room" attempted to leave sooner than did subjects assigned to the "beautiful room."

Additional research suggests that the environment can also affect a group's ability to solve problems. A book compiled by the Educational Facilities Laboratories reports the results of several investigations into the effects of color, lighting, temperature, and noise upon comprehension and problem solving.<sup>33</sup> People can generally do a better job of comprehending information and solving problems in a more aesthetically attractive environment. But research does not suggest that there is one best environmental condition for all group communication situations. The optimal environment is dependent upon the specific task, as well as the needs and expectations of group members.

In addition to group member seating arrangement and environment, group members' eye contact is a very important variable affecting verbal interaction. Eye contact has long been identified as an important nonverbal variable. In the

context of a small group discussion, eye contact has several important purposes. Kendon has noted at least four functions of eye contact in interpersonal communication situations: (1) cognitive, (2) monitoring, (3) regulatory, and (4) expressive.<sup>34</sup>

The cognitive function of eye contact operates when an individual's eyes provide an indication of his thought processes. For example, some people look away when they are thinking of just the right words to say. Perhaps some individuals look away just before they speak so they will not be distracted by the person they are talking to.

The second function of eye contact, monitoring, is concerned with the way in which we seek feedback from others when we are communicating with them. When you are addressing a small group, in an effort to determine how effectively you are expressing yourself, you probably look at the members of the group to monitor the feedback others provide. If you say something that another group member disagrees with, you may observe a change in his facial expression, body posture, or movement. You then may decide that you need to spend more time developing and explaining your point.

A third function of eye contact, the regulatory function, is one of the most important in the context of a small group. Our use of eye contact helps to regulate the back and forth flow of our communication with others. We can invite interaction simply by looking at others. For example, imagine that the

chairman of a committee of which you are a member, asks for volunteers for an assignment. If you don't want to be "volunteered" for the task, you will probably not establish eye contact with the chairman, just as students do not establish eye contact when the teacher of a class asks a question and the students don't know the answer. Direct eye contact may be interpreted to mean that the communication channel is open and the students would not mind being called upon for the response.

The fourth function of eye contact identified by Kendon is the expressive function. While eyes themselves generally do not provide emotional cues, the area immediately around the eyes provides quite a bit of information about certain emotions we express. Our eyelids and eyebrows, as well as the area directly underneath the eyes, provide important clues as to whether we are surprised, disgusted, angry, happy, or sad. Eye contact with others may also communicate feelings of positive regard toward others. Beebe discovered that a speaker with more direct eye contact may be perceived as more credible than if he uses little or no eye contact.<sup>35</sup>

Eye contact, then, is a very important source of information about group members' thought processes, can provide feedback, helps to regulate the flow of communication among group members, and is an important area of the face in expressing attitudes and emotions.

### Summary

This paper has presented the results of several studies suggesting that nonverbal communication variables play a significant role in affecting the meaning of messages. Specifically this paper has considered applications of nonverbal communication research to the business communication context. After defining nonverbal communication, the paper documented the overall importance of nonverbal messages to the business setting. It was also noted that caution should be exerted in trying to determine definitive meanings of nonverbal cues exhibited by others. Six specific functions of nonverbal communication were listed. And finally, applications of nonverbal communication research to both the personal interview, and the discussion and conference setting were delineated.

The systematic study of nonverbal communication is a relatively new research field. The first college-level textbook was not published until 1971.<sup>36</sup> There is much we have to learn. Yet we do know that nonverbal message variables contribute to the quality and accuracy of communication. Moreover, the business communicator should consider developing his sensitivity to understanding nonverbal messages, along with improving his skill in memo writing and other corporate prose.

## NOTES

<sup>1</sup>For a more complete discussion of the issues concerning the definition of nonverbal communication, see: Mark Knapp, Nonverbal Communication in Human Interaction (New York: Holt, Rinehart and Winston, 1978), pp. 1-43.

<sup>2</sup>R. L. Birdwhistell, Kinesics and Context (Philadelphia: University of Pennsylvania Press, 1970).

<sup>3</sup>Albert Mehrabian, Nonverbal Communication (Chicago: Aldine-Atherton, 1972), p. 2.

<sup>4</sup>Frank E. X. Dance, "Toward a Theory of Human Communication," in Frank E. X. Dance (ed.) Human Communication Theory (New York: Holt, Rinehart and Winston, 1967), p. 290.

<sup>5</sup>Birdwhistell, Kinesics and Context.

<sup>6</sup>Ibid.

<sup>7</sup>Ibid.

<sup>8</sup>Paul Ekman, W. V. Friesen, and K. R. Scherer, "Body Movement and Voice Pitch in Deceptive Interaction," Semiotica 16 (1976), 23-27; M. L. Knapp, R. P. Hart, and H. S. Dennis, "An Exploration of Deception as a Communication Construct," Human Communication Research 1 (1974), 15-29; and P. Ekman and W. V. Friesen, "Hand Movements," Journal of Communication 22 (1972), 353-374.

<sup>9</sup>P. Ekman and W. V. Friesen, "Nonverbal Leakage and Clues to Deception," Psychiatry 32 (1969), 88-106.

<sup>10</sup>E. H. Hess, "The Role of Pupil Size in Communication," Scientific American 233 (November 1975), 110-119.



<sup>11</sup>Mehrabian, Nonverbal Communication, p. 106.

<sup>12</sup>P. Ekman, "Communication Through Nonverbal Behavior: A Source of Information About an Interpersonal Relationship," in Affect, Cognition and Personality, edited by S. S. Tomkins and C. E. Izard (New York: Springer, 1965).

<sup>13</sup>J. Fast, Body Language (New York: M. Evans, 1970).

<sup>14</sup>G. I. Mierenberg and H. H. Calero, How to Read a Person Like a Book (New York: Hawthorn, 1971).

<sup>15</sup>E. T. Hall, The Hidden Dimension (Garden City, New York: Doubleday, 1966).

<sup>16</sup>Robert Shuter, "Proxemics and Tactility in Latin America," Journal of Communication 26 (1976), 46-52.

<sup>17</sup>Mehrabian, Nonverbal Communication, pp. 178-190.

<sup>18</sup>Albert Mehrabian, Silent Messages (Belmont, Calif.: Wadsworth), p. 1.

<sup>19</sup>Mehrabian, Nonverbal Communication, p. 30.

<sup>20</sup>J. Mills and E. Aronson, "Opinion Change as a function of the Communicator's Attractiveness and Desire to Influence," Journal of Personality and Social Psychology 1 (1965), 73-77.

<sup>21</sup>W. Wells and B. Siegel, "Stereotypes Somatypes," Psychological Reports 8 (1961), 77-78.

<sup>22</sup>John T. Molloy, Dress for Success (New York: Warner Books, 1976).

<sup>23</sup>John T. Molloy, Dress for Success for Women (New York: Warner Books, 1977).

<sup>24</sup>M. Lefkowitz, R. Blake, and J. Mouton, "Status Factors in Pedestrian Violation of Traffic Signals," Journal of Abnormal and Social Psychology 51 (1955), 704-706.

<sup>25</sup>B. Steinsol, "The Spatial Factor in Face to Face Discussion Groups," Journal of Abnormal and Social Psychology 45 (1950), 552-555.

<sup>26</sup>F. Strodtbeck and L. Hook, "The Social Dimensions of a Twelve Man Jury Table," Sociometry 36 (1973), 424-429.

<sup>27</sup>A. Hare and R. Bales, "Seating Position and Small Group Interaction," Sociometry 26 (1963), 480-486.

<sup>28</sup>L. T. Howells and S. W. Becker, "Seating Arrangement and Leadership Emergence," Journal of Abnormal and Social Psychology 64 (1962), 148-150.

<sup>29</sup>M. Dosey and M. Meisels, "Personal Space and Self Protection," Journal of Personality and Social Psychology 11 (1969), 93-97.

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